

*Proposed Counting weirs - Chilkat and Chilkoot*  
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DEPARTMENT OF COMMERCE  
 BUREAU OF FISHERIES



REPORT of INVESTIGATION of CHILKAT and  
 CHILKOOT LAKE DISTRICTS, RELATIVE TO ESTABLISHING  
 SALMON COUNTING WEIRS TO CHECK THE ESCAPEMENTS.

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In accordance with verbal instructions from the Commissioner a trip was made to the Chilkat and Chilkoot lake districts for the purpose of investigating the possibilities of installing weirs for counting salmon through to determine the escapement in each locality.

On July 31, in company with Warden O'Connor, the writer proceeded from Haines via auto to Klukwan on the Chilkat side where natives and a boat were engaged for trip up river and into Chilkat Lake. Near Klukwan the Red Salmon River flows into the Chilkat river through hundreds of small channels covering a width of about three miles. Each channel has a fair flow and many of them are navigable with dugout canoes, such as the Indians use. These canoes are about 20 ft. x 4 ft. and operated by poling and paddles. The water is of a milky color and no fish can be seen but the natives camp on the gravel bars close to one of the channels, armed with a long pole which has a hook fastened to its end, and by a continuous process of hooking manage to secure a sufficient supply of salmon for their home use. Nets would not be feasible owing to the swift waters.

The Chilkat Lake is about seven miles from Klukwan and our mode of travel was by walking over the gravel bars and being assisted across the deep channels by the Indians in their canoes. The latter portion of the trip, from the main river into the lake for about one mile, was through a comparatively deep channel with small water flow. We found two lakes: the first and largest being about three miles long by three-fourths mile wide and the upper lake is connected by a short channel about 200 yards long and similar in appearance to the outlet of the main lake and is about one mile long by one-fourth mile wide. A trip was made around the two lakes and some spawning noted, all red salmon. About 2000 salmon all told were seen on the spawning grounds which appeared limited in extent; the best possibilities being near the head of the first lake where a small spring water creek breaks into the lake and several hundred red salmon noted therein. Activities of bear were noticeable here. Numerous small gravel spits at various points around the lake formed by small waterfalls from the surrounding mountains were the main sources of spawning areas.

Report on Chilkat and Chilkoot Lake District. (2)

We were too early to observe as to the extent of spawning operations but determined beyond a doubt that counting operations here would not be feasible as the fish could not be seen in the stream during the period when the run was on owing to the discoloration of the water from the melting glaciers.

The difficulties of transportation might be overcome with considerable labor and extra expense to the extent of racking the stream entering Chilkat Lake, but this lake, according to my information, harbors but a small percentage of the reds and other salmon ascending the Chilkat River. At other localities, within any reasonable distance, it would be impossible and useless to establish.

We returned to Klukwan and Haines in the evening. On the following morning we proceeded to Chilkoot River and Lake. Visited the native fish village near the entrance of the lake. Here a few families of natives were camped and catching a supply of salmon for home use. The natives have platforms in the river on which they stand with a long pole and hook attached and by a continuous process of hooking, mostly at night, secure their salmon supply. There were three men hooking the previous night and one man caught 80 red salmon.

The water in the river is of a more extreme milky color than at Chilkat and color so dense that hooking is at times profitable in day time, but as a rule the salmon ascend in good numbers mainly at night.

Racks are feasible here but would be of no use when established as the fish would not be visible in the water.

Considerable misinformation has been distributed among the natives which came to the surface when we endeavored to secure a boat for travel up the lake. The natives were told that the Bureau was about to establish a hatchery in the lake and prohibit all fishing in the river for home or any other use. They were cautioned against assisting the Bureau men either with labor, boats or information. At a meeting held sometime ago at Haines they voted against any cooperation with the Government fisheries employes.

After considerable effort and mainly due to the diplomacy of Warden O'Connor the natives were convinced their information was in error and they then furnished us a boat and man to assist us. We proceeded up the lake to its head and the entire lake was of the same milky appearance as the river so no fish were discernible except in a small spring creek near the lake head where about one hundred were noticed spawning.

Report on Chilkat and Chilkoot Lake District -3-

Our information from the natives was to the effect that there are several of these spring water creeks distributed a long and tributary to the twenty miles of creek that flows into the lake, and these spring water pools harbor the greater portion of the salmon that enter Chilkoot Lake. This lake is about the same size as Chilkat Lake or about three miles long by one mile wide and of the same general appearance as to spawning areas around its shores.

Like the situation at Chilkat, our investigation, as to the numbers of salmon, was too early for intelligent observation but am convinced that counting weirs at either locality are impracticable.

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*Dennis Smith*  
Agent.

Juneau, Alaska, August 8, 1925.